A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H02J13/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 H02J G01R G01B G01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

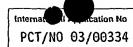
EPO-Internal, WPI Data, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 341 088 A (DAVIS MURRAY W) 23 August 1994 (1994-08-23) column 3, line 55 -column 27, line 64; figures 1-31	1-24
٠.	abstract	
Υ	US 4 360 881 A (MARTINSON JOHN R) 23 November 1982 (1982-11-23) column 1, line 63 -column 5, line 32; figures 1-4 abstract	1-13
Υ	WO 95 35478 A (HAFSLUND NYCOMED AS; IVERSEN HAAKON (NO); MORDT HELGE (NO)) 28 December 1995 (1995-12-28)	7,14
	page 12, line 29 - line 35; figures 9-11 abstract	• •
	-/	

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 5 May 2004	Date of mailing of the international search report 2 5 MAY 2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer ROLAND LANDSTRÖM/MN

Form PCT/ISA/210 (second sheet) (January 2004)





Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5341088 /	23-08-1994	US US CA US	4728887 A 5140257 A 1249335 A1 4806855 A	01-03-1988 18-08-1992 24-01-1989 21-02-1989
US 4360881 /	23-11-1982	NONE		
WO 9535478 A	28-12-1995	NO AT AU CA DE DE DK EP JP NO WO	942358 A 183823 T 696185 B2 2809795 A 2191889 A1 69511697 D1 69511697 T2 766809 T3 0766809 A1 10502730 T 965348 A 9535478 A1	21-12-1995 15-09-1999 03-09-1998 15-01-1996 28-12-1995 30-09-1999 04-05-2000 21-02-2000 09-04-1997 10-03-1998 13-12-1996 28-12-1995
US 6229451 B	1 08-05-2001	US	6097298 A	01-08-2000
US 4158810 A	19-06-1979	YU DE	281174 A1 2546694 A1	28-02-1982 29-04-1976